

From: ["Sanders, LaTonya" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE:GROUP \(FYDIBOHF23SPDLT\)/CN=RECIPIENTS/CN=1BF8B3D0F9994E499C683FF2D1BE26F8-SANDERS,LATONYA>](mailto:Sanders.LaTonya@epa.gov)

To: [Hague](#)  
[Mark;Field](#)  
[Jeff;Gravatt](#)  
[Dan;Larson](#)  
[Kevin](#)

CC: ["Brooks, Karl" <brooks.karl@epa.gov>](mailto:brooks.karl@epa.gov)

Date: 1/21/2014 11:46:32 AM

Subject: Inquiries from Sen. Blunt re: West Lake Landfill

Attachments: [West Lake Landfill Site Tour - Email Inquiries from Sen. Blunt.docx](#)  
[13-000-2902.pdf](#)  
[R7-13-000-2902-C.pdf](#)

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Good Morning,

Attached are inquiries over the past year received from Sen. Blunt re: West Lake Landfill.

If you have any questions, please let me know.

Thanks.

LaTonya E. Sanders  
Congressional Liaison

U.S. Environmental Protection Agency, Region 7  
Office of the Regional Administrator  
Office of Public Affairs  
11201 Renner Boulevard  
Lenexa, Kansas 66219

Office: 913-551-7555  
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West Lake Landfill Site Tour  
Email Inquiries from Sen. Blunt's Office

**April 25, 2013**

1. We were told there would be a quick return on the data from the EPA plane testing. What is the delay in the release of the information? Although the ASPECT plane was able to perform an instant analysis during the flyover, the results still have to go through quality assurance to attest to their validity. A report is being generated to assist in communicating the complex results associated with this activity. EPA will release this report in May.
2. In your previous risk assessments was there a risk assessment for an underground fire at this site? EPA has not addressed the subsurface smoldering event (underground fire) in previous risk assessments.
3. I have heard at meetings that the EPA water tests found radioactivity within 100 feet of the underground fire. Could you give me a clarification on that point? PZ-109-SS is a monitoring well that was sampled last July and did have some detections of dissolved radium. While PZ-109-SS is on the north edge of the Former Active Sanitary Landfill cell, its actual distance from the edge of the "fire" is not known with any certainty due to uncertainty in the fire's perimeter. It is likely more than 200 feet from the fire, based on a depiction provided by MDNR at EPA's January public meeting. It is important to note that this well is outside of the waste mass of the Former Active Sanitary Landfill. Additionally the well contained 5.3 pCi/L of dissolved radium which is only slightly above the Maximum Contaminant Level of 5 pCi/L. The Maximum Contaminant Level is the legal limit of a certain contaminant that drinking water may contain as regulated by the Safe Drinking Water Act. There are no consumers of the ground water contained within the landfill.
4. Who determines when air levels are no longer safe for residents? Concerns related to air and odor is being addressed by health agencies such as the Missouri Department of Health and Senior Services.
5. Who is responsible for an evacuation plan if warranted? The Pattonville Fire District / local responders will be responsible for implementing an evacuation plan if such is warranted.

**June 4, 2013**

1. Since West Lake Landfill is becoming a very public location has the agency revisited the need for additional security? Is there 24 hour security? **EPA believes security at the Westlake site is adequate. Specific questions about site security should be directed to Republic Services.**
2. When will EPA release the response to Dr. Criss' report? Can we look for that release before the June 25, 2013 public meeting? **EPA intends to address questions and comments such as those raised in Dr. Criss' submittal as we plan and implement future remedial actions at the site.**
3. My question on the call yesterday related to the movement of the top 1 foot of contaminated soil by water, air, and wildlife. Was the testing of the perimeter of Landfill by MO DNR to evaluate this movement? **On May 16, 2013, MDNR conducted radiological survey in the Bridgeton landfill area. MDNR's survey results indicated background radiation levels at all locations. While MDNR's radiological survey was not specifically intended to evaluate "movement of the top 1 foot of contaminated soil by water, air and wildlife," their survey results and EPA's ASPECT results do not show any evidence of movement of surface radiological materials.**
4. Some of the resident's experts are concerned that the 39,000 tons of top soil thought to dilute the 8700 tons of barium-sulfate at West Lake Landfill is really radioactive materials that are the leftovers of Congo and Colorado Raffinate after the bulk of them were shipped offsite, plus the top 12-18 inches of the soil they were sitting on (see bottom of page 4 and top of page 5 of AEC Inspection Report\*). Logically, this would have included tailings of the Raffinate that had mixed in with the top soil or been too dispersed to be worth shipping out of state. **It is likely that the soil removed from the Latty Avenue site and mixed with the barium sulfate residue contained residual amounts of the other radiological wastes stored there as identified in the referenced document. However, assuming that the NRC has no more information than is included in these and other documents in EPA's possession, it is impossible to say how much radiological material this soil contained. Since the Congo raffinate and Colorado raffinate were valuable enough to justify drying and shipping these materials to Colorado, it is likely that very little of this material was left on-site.**

Did the cover letter to the AEC report contains an error in the math that yielded the statement that the barium-sulfate was dilute to 0.0001% (see math below)? This number should have read 0.01%\*\* or 100 to 150 times higher than EPA reports, assuming non-rim soil was used. **The NRC made a mathematical error on the first page of its November 1, 1974 letter to Cotter Corporation when it calculated the uranium concentration in the mixture of leached barium sulfate residue and soil as 0.0001%. The**

value should have been 0.01%. Regardless of the percentage calculation, the *amount* of uranium in this mixture (seven tons) has been consistently reported by NRC and EPA and is not in question. Most importantly, EPA has extensive analytical results for the materials actually present in West Lake Landfill, as reported in the Remedial Investigation Report, the Record of Decision, and other documents in the Administrative Record. The actual site conditions, analytical results and risk assessments form the basis for EPA's decision-making at the site.

Is there an additional 350 T of "miscellaneous residues containing about 2 tons of uranium" that may have ended up at West Lake? According to the NRC's November 1, 1974 letter to Cotter Corporation, in the last paragraph on page 4, "The only residue then remaining at the site was the 8700 tons of leached barium sulfate." In the context of this paragraph, this was the condition at the site just prior to mixing the leached barium sulfate with the surface soils at the Latty Avenue site. While not explicitly accounted for in the NRC's letter, these miscellaneous residues were apparently not included in the materials sent to the West Lake Landfill. DOE may have further information on the disposition of these miscellaneous residues.

**July 15, 2013**

1. At any time has temperatures been taken in West Lake Landfill, the North quarry? If so when and what were the temps? The Missouri Department of Natural Resources is the lead Agency addressing the solid waste disposal cells. They have been intricately involved in monitoring the SSO event and would be the most knowledgeable in answering those specific questions.
2. At any time has there been an indication that temps in West Lake were 160 F? Temperatures are not being measured in the radiologically-contaminated waste cells (Operable Unit 1, Areas 1 and 2). We are working with EPA's Office of Research and Development on assessment of site conditions. The Missouri Department of Natural Resources is engaged on the temperature monitoring at the Bridgeton site.
3. Mo DNR tells me that the interceptor wells are working and the temps have gone down around the interceptors at the North neck. Do you agree with their assessment? Chief Lavanchy was alluding to heating activity at the neck of the two landfills. EPA's Office of Research and Development experts are currently evaluating the data .
4. Is EPA building a new fence around West Lake Landfill? The PRPs recently (June) installed a new fence between the North Quarry landfill cell and OU1 area 1 at EPA's request to ensure that construction workers do not enter the Westlake area. They also improved the existing fencing around other parts of OU1.

**January 14, 2014**

1. It is my understanding that some of the private off site test completed by USGS has been released at the CAG meeting in Dec. 2012. We have received a request from the community that EPA release the water data as it comes in from USGS. The EPA has not released any of the USGS off-site well test results to anyone, because we do not have the results at this time. When and how we release this data will be determined by when we get the data from USGS, whether each individual well owner consented to having their data released to the public, and how the EPA determines best to release the data.

## Sanders, LaTonya

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**From:** Behrouz, Liz (Blunt) [Liz\_Behrouz@blunt.senate.gov]  
**Sent:** Friday, March 08, 2013 4:27 PM  
**To:** Sanders, LaTonya  
**Subject:** INQUIRY FROM SENATOR ROY BLUNT'S OFFICE  
**Attachments:** [Untitled].pdf

Please review the attached information on behalf of rita sanders.

ROY BLUNT  
MISSOURI

260 RUSSELL SENATE OFFICE BUILDING  
WASHINGTON, DC 20510-2508  
202-224-5721

## United States Senate

WASHINGTON, DC 20510

COMMITTEES  
APPROPRIATIONS

COMMERCE, SCIENCE  
AND TRANSPORTATION

RULES AND ADMINISTRATION

SELECT COMMITTEE  
ON INTELLIGENCE

March 6, 2013

Congressional Liaison  
Environmental Protection Administration  
Kansas City, KS

Dear Liaison:

Enclosed is a copy of a letter my office has received from Rita Sanders regarding an EPA clean up.

Please provide an explanation of this matter so that I may properly respond to my constituent. You may respond to my Office of Constituent Services at 308 East High Street, Suite 202, Jefferson City, Missouri 65101 or fax to 573/634-6005.

Thank you for your time and assistance with this situation.

Sincere regards,



Roy Blunt  
United States Senator

RDB/ejb  
enclosure



<APP> SCCMAIL  
<IP>131.103.137.132</IP>  
<PREFIX></PREFIX>  
<FIRST>Rita</FIRST>  
<MIDDLE></MIDDLE>  
<LAST>Sanders</LAST>  
<SUFFIX></SUFFIX>  
<ADDR1>[REDACTED] > FOIA Exemption 6

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] /EMAIL>

<ISSUE>Other</ISSUE>

<MSG>I am writing to you asking for your help relating to the radioactive contamination in North St Louis County. My husband Mark grew up in Bridgeton Mo. And worked at St Louis Lambert field over 30 years. Mark passed away from Kidney Cancer in July 2011. Mark was 52 when he passed away.

Words cannot explain how this has devastated our family. I have lost my husband, my best friend and the Father of our children. It has been very difficult.

Losing your spouse at such an early age is hard. Hearing the radioactive materials, contaminated soil and water in the area surrounding Bridgeton and the Airport sickens me. I truly believe this is what caused Mark's Cancer. It is so sad to think that this has been going on for so long, they are aware of it and still no one has done anything about it. If they would have resolved the issue, Mark would be here with me.

How could this have gone on for so long? There are so many people from North County diagnosed with Cancer and many other strange illnesses. What has to happen to get the Airport "SLAPS" site cleaned? What has to happen to get Coldwater Creek cleaned? And the West Lake site?

Many people younger than Mark have died from Cancer. More are struggling with treatments and surgeries. There was a group created on Facebook for people to document their illnesses. It is so heart wrenching to read the stories. Thousands of residents.

The people are pulling together to take this forward and get the governments attention so something will be done about it. Please help us save lives. Please join our forces to help get North County cleaned from the radioactive material so we can live. This is HUGE! Be part of the solution, not part of the problem.

Please call if you are willing to help us.

Sincerely,

Rita Sanders

</MSG>

</APP>



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
11201 RENNER BOULEVARD  
LENEXA, KS 66219

MAR 21 2013

The Honorable Roy Blunt  
Office of Constituent Services  
308 East High Street, Suite 202  
Jefferson City, Missouri 65101

OFFICE OF  
THE REGIONAL ADMINISTRATOR

Dear Senator Blunt:

Thank you for asking about this agency's work at several St. Louis County sites mentioned in Rita Sanders' March 6, 2013, letter.

The EPA's work at these sites is dedicated to accomplishing the goals Congress established in several different statutes governing remediation of nuclear weapons production waste. Overall, this agency carries out its statutory mission to protect public health and the environment by ordering or overseeing responsible, achievable remedies. As you might expect, the EPA's work has generated substantial public controversy, an understandable result of nuclear contamination's risk and the difficult scientific and engineering issues that this agency must address. Throughout the long process of selecting, overseeing, and implementing remedies, this agency has strived to be transparent to the people of the St. Louis area and has welcomed public comment.

Both EPA and the U.S. Army Corps of Engineers play a role in the cleanup of the St. Louis County sites, based on Congressional direction. In 1974, The Atomic Energy Commission created the Formerly Utilized Sites Remedial Action Program (FUSRAP) to address the cleanup of nuclear weapons production and to designate sites to receive federal funding for site cleanup. Responsibility for FUSRAP was assumed in 1977 by the U.S. Department of Energy and then transferred by statute to the Corps in 1997.

FUSRAP tasks the Corps to select and implement remedies at the designated sites. FUSRAP also directs the Corps to follow the EPA's remedy-selection criteria, set forth in federal regulations implementing the 1980 Superfund law (formally known as the Comprehensive Environmental Response Cleanup and Liability Act or CERCLA). In other words, although the Corps chooses the remedy to clean up a FUSRAP site, the standards that define its remedy selection and govern its cleanup mission are the same as those that the EPA follows through the CERCLA process. FUSRAP directs the EPA to oversee the Corps' implementation of remedies selected by the Corps.

The St. Louis Airport sites (SLAPS) which include Coldwater Creek, were designated by the Department of Energy to be part of FUSRAP. Therefore, the Corps selected the remedies for these sites and sees to their implementation. At the West Lake Landfill site, by contrast, the governing federal laws, particularly CERCLA, require the EPA to select the appropriate remedy and to directly supervise the work of contractors hired by several private and public parties that have legal duties to remediate pollution they caused. At all these sites, statutes impose on DOE, the federal nuclear-weapons agency that originally created the radioactive waste material, enforceable financial and legal responsibilities.



And at all these sites, federal statutes require the EPA and the Corps to conform to applicable state statutes, administered at these sites by the Missouri Department of Natural Resources.

I briefly set out this complex framework of laws and agencies because your constituents should understand that remediating sites contaminated with nuclear-weapon production waste requires coordinated activity among different public agencies and private parties. To the extent that this report about the status of remediation at these sites mentions work being done by other federal and state agencies, those agencies' own points of contact should also be consulted to gain a complete appreciation of the cleanup projects. I have listed those contacts at the end of this letter.

St. Louis area residents should expect their public agencies to cooperate on complex tasks like nuclear-waste remediation, and EPA Region 7 strives to attain that goal, while discharging the regulatory and oversight roles Congress intended.

I want to start with the West Lake Landfill site because the EPA's responsibilities are clearest there. At SLAPS, this agency's work is supervisory because Congress has assigned remedy selection and work supervision to the Corps of Engineers.

#### West Lake Landfill

My predecessor as Regional Administrator, John Askew, approved a Record of Decision in May 2008 to clean up OU-1, the radiologically contaminated landfill cells. The ROD described the selected remedy: capping the waste in place, which means placing an engineered cover system over the contaminated areas, monitoring the groundwater for long term, and establishing institutional controls to restrict access.

After EPA Region 7 approved the ROD, public comments about the selected remedy persuaded this agency in January 2010 to order the potentially responsible parties to conduct a Supplemental Feasibility Study for OU-1. The SFS evaluated the ROD remedy selected (capping in place), as well as an alternative: full-scale excavation of all radiologically contaminated landfill material and its disposal at either a permitted off-site facility (likely in Idaho or Utah) or in a new, on-site engineered disposal cell. The EPA approved the SFS and released it to the public for information in December 2011.

Estimated costs for both alternative remedies in the SFS exceeded the cost threshold that requires review by the EPA's National Remedy Review Board. In early 2012, the NRRB recommended additional studies to improve the SFS. These include: conducting and evaluating additional groundwater sampling to refresh the data; conducting a more detailed study of a third possible remedy: partial excavation, which would remove from OU-1 only the most contaminated landfill material; and analyzing potential treatment technologies for the contaminated landfill material.

The EPA ordered the PRPs in June 2012 to conduct these additional studies. The first round of new groundwater sampling occurred that summer, and three more rounds will occur this year. Region 7 also conducted new vertical gamma scans of materials surrounding monitoring wells at OU-1 in November 2012 and updated older gamma scans of OU-1's surface in March 2013. The purpose of gamma scanning is to detect radiation. After completing and analyzing these new studies, the EPA will release a new proposed plan to amend the 2008 ROD and will consider additional public comment.

I want to assure Ms. Sanders and you that people are not now exposed to unsafe radiation from the contaminated waste buried in OU-1 because the site is fenced to prevent public access. Groundwater

beneath the site, which has been determined to be contaminated in isolated areas, is not now, never has been, and will not be used as a drinking-water source.

### St. Louis Airport sites (SLAPS)

The St. Louis Airport sites are comprised of the "Downtown" sites located at the Mallinckrodt Chemical Plant in downtown St. Louis, and the "North County" sites located near the Lambert International Airport. Uranium ores were processed by Mallinckrodt at the Downtown sites from 1942 to 1957 under contract with the Manhattan Engineering District and later the Atomic Energy Commission.

The SLAPS cleanup began as follows:

- March, 1974 - Atomic Energy Commission establishes FUSRAP
- October 4, 1989 – The EPA listed SLAPS on the National Priority List
- June 29, 1990 – DOE and the EPA sign a Federal Facilities Agreement committing DOE to pay for the Corps to clean up low-level radioactive-contaminated soils at the Downtown and North County sites
- August 27, 1998 – St. Louis Corps District Record of Decision for the Downtown sites
- September 5, 2005 – St. Louis Corps District ROD for the North County sites

The remedy for the SLAPS RODs involves Corps contractors excavating radioactive-contaminated soils from numerous private and municipally owned properties and shipping by rail car to disposal facilities in Idaho or Utah. Soil excavation work is ongoing in several locations in the Downtown and North County properties—through 2012, 177,000 cubic yards of soils from the Downtown sites and 852,000 cubic yards of soil around the North County sites have been removed.

### Coldwater Creek

Investigations by the EPA, DOE and the Corps have attributed potential radiological contamination in Coldwater Creek to runoff or windblown migration of the prior storage of uranium-processing residues and wastes from the North County portion of SLAPS sites. The Corps has removed the North County sources of these wastes, which came from ore-processing activities at the Downtown portion of SLAPS sites. The Corps biannually conducts sediment and water sampling at six different locations in Coldwater Creek as part of its environmental monitoring program. The Corps reports and evaluates data in its annual environmental monitoring reports.

Although the Corps has taken sediment and water samples along Coldwater Creek since 1998, some data gaps still exist. As part of the plan to work from upstream to downstream, the Corps sampled Coldwater Creek from McDonnell Boulevard to Frost Avenue in October and November 2012. Currently, the Corps is sampling and analyzing the data along the banks of Coldwater Creek from McDonnell Boulevard to Frost Avenue. The results of the sampling will be summarized in a report expected later this year. In addition, the Corps is developing a sampling plan for the portion of the creek from Frost Avenue to St. Denis Bridge. Once the sampling plan has been issued, the Corps will begin sampling this stretch of the creek, the results of which will determine the density of sampling required throughout the

remainder of the creek to the mouth of the Missouri River. The purpose of this final round of sampling will be to confirm that the creek meets the North County ROD's cleanup requirements or to identify and quantify any material requiring removal to meet these requirements.

#### Human Health Concerns

The Missouri Department of Health and Senior Services has performed a cancer study looking at individuals from the following ZIP codes: 63031, 63033, 63034, 63042, 63134 and 63138. DHSS has published the results of the study at:

<http://www.health.mo.gov/living/healthcondiseases/chronic/cancerinquiry/reports.php>

To facilitate your office's communication with other federal and state agencies working at the St. Louis County sites, I am including their point of contact:

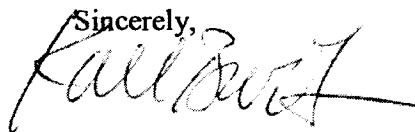
Colonel Christopher G. Hall  
United States Army Corps of Engineers  
1222 Spruce Street  
St. Louis, MO 63103-2833

Sharon Cotner  
St Louis FUSRAP Program Manager  
United States Army Corps of Engineers  
8945 Latty Avenue  
Berkeley, Missouri 63134

Jonathan D. Garoutte  
Bureau of Environmental Epidemiology  
Missouri Department of Health and Senior Services  
930 Wildwood Dr., P.O. Box 570  
Jefferson City, MO 65102-0570

Branden B. Doster  
Hazardous Waste Program  
Missouri Department of Natural Resources  
Post Office Box 176  
Jefferson City, MO 65102-0176

Thank you for sharing Ms. Sanders' concerns with us. This agency looks forward to keeping your office informed about work at the West lake Landfill. I suggest that Region 7 schedule periodic briefings for you or your staff, and look forward to hearing whether this suggestion meets your needs for current, accurate information.

Sincerely,  


Karl Brooks

cc: Colonel Christopher G. Hall, United States Army Corps of Engineers  
Jonathan D. Garoutte, Bureau of Environmental Epidemiology  
Branden B. Doster, Hazardous Waste Program